

ABSTRACT OF THE DISCLOSURE

A heat recovery ventilator includes four rectangular regenerative heat exchangers, two blowers, a rotating air switch all disposed in a compact rectangular housing. The regenerative heat exchangers are made of a pleated HEPA filter material. The HEPA filter material captures at least 99.97% of particles having a diameter greater than 0.3 microns. Alternatively, the HEPA filter material is rated at least 85% Dust-Spot Efficiency percentage as measured by ASHRAE Standard 52.1-1992, Dust-Spot Procedure. The regenerative heat exchangers are stationary with stationary seals between the outside and inside climate. One of the blowers blows a stale airstream out through the heat exchangers; the other blower blows a fresh airstream in through the heat exchangers. The rotating air switch operates in conjunction with the two blowers producing the necessary flow reversal through each regenerative heat exchanger to allow heat and moisture exchange between the stale airstream and the fresh airstream. The rotating air switch is completely on the inside climate side of the regenerative heat exchangers preventing freeze up in cold weather. The rotating air switch uses clearance seals.